

MASSACHUSETTS

Science and Engineering Profile

	Mass.	U.S.	Rank		Mass.	U.S.	Rank
Doctoral scientists, 1993	19,645	430,332	5	Total R&D performance, 1993 (millions)	\$9,468	\$161,427	4
Doctoral engineers, 1993	3,166	81,293	7	Industry R&D, 1993 (millions)	\$6,952	\$117,622	5
S&E doctorates awarded, 1995	1,445	26,482	4	Academic R&D, 1994 (millions)	\$1,122	\$20,573	5
of which, in engineering	25%	23%		of which, in life sciences	39%	55%	
in life sciences	21%	24%		in engineering	19%	16%	
in social sciences	19%	15%		in physical sciences	16%	10%	
S&E postdoctorates, 1994				Higher education current-fund			
in doctorate-granting institutions	4,222	36,143	2	expenditures, 1993 (millions)	\$7,456	\$163,994	6
S&E graduate students, 1994				Number of SBIR awards, 1990-94	2,916	18,023	2
in doctorate-granting institutions	22,882	438,694	4	Patents issued to state residents, 1995	2,161	55,717	9
Population, 1995 (000s)	6,074	262,755	13	Gross state product, 1992 (billions)	\$162.0	\$5,994.1	10
Civilian labor force, 1995 (000s)	3,168	132,281	13	of which, agriculture	1%	2%	
Personal income per capita, 1995	\$26,994	\$22,788	4	manufacturing, mining, construction	21%	23%	
Federal spending				transportation, communication, utilities	7%	9%	
Total expenditures, 1995 (millions)	\$35,858	\$1,326,294	12	wholesale and retail trade	16%	16%	
R&D obligations, 1994 (millions)	\$3,234	\$65,654	6	finance, insurance, real estate	21%	18%	
				services	25%	20%	
				government	9%	12%	

Rankings and totals are based on data for the 50 States and D.C.

Data on S&E postdoctorates and S&E graduate students include health fields.

Federal Obligations for Research and Development in Massachusetts by Agency and Performer: Fiscal Year 1994

[Thousands of dollars]

	Total	Federal intramural	All FFRDCs	Industrial firms	Universities & colleges	Other nonprofits	State & local government	State rank
Total, all agencies	3,234,051	341,397	277,699	1,226,730	825,912	548,924	13,389	6
Department of Agriculture	21,664	14,798	0	167	6,351	348	0	22
Department of Commerce	38,499	27,636	157	6,903	3,236	221	346	6
Department of Defense	1,819,521	236,242	272,012	1,082,232	185,216	43,819	0	7
Department of Energy	88,862	129	0	6,176	79,045	3,512	0	14
Dept. of Health & Human Services	901,577	29,448	0	71,902	347,446	446,827	5,954	4
Department of the Interior	6,471	5,349	0	315	807	0	0	24
Department of Transportation	41,788	25,159	0	8,636	2,453	0	5,540	4
Environmental Protection Agency	19,823	0	0	15,513	2,761	0	1,549	5
Nat'l Aeronautics & Space Admin.	126,941	2,090	5,388	25,808	49,418	44,237	0	10
National Science Foundation	168,905	546	142	9,078	149,179	9,960	0	3
State rank	6	11	5	8	3	1	3	

Federal R&D obligations are as reported by funding agencies.

FFRDC = federally funded research and development center

SBIR = small business innovation research

na = not applicable

Prepared by the National Science Foundation/Division of Science Resources Studies. Data compiled from numerous sources.